**Amendments to the Specification**

Please replace the paragraph beginning on page 7, line 9 through page 8, line 18, with the following rewritten paragraph:

To accomplish the above objects and other advantages, there is used a QCSE photodetector having both functions of the ~~fabry-ferot~~fabry-perot filter and the photodetector instead of directly using the ~~fabry-ferot~~fabry-perot filter and the photodetector. FIG. 4 shows an 1s exciton absorption characteristic of the QCSE. As shown in FIG. 4, the QCSE photodetector shows a characteristic in which absorption decreases near left and right sides of a peak wavelength, which is similar to transmission characteristic of a fabry-perot resonator. According to one aspect of the present invention, which provides a wavelength stabilizing method in which a first QCSE photodetector and a second QCSE photodetector receive a light outputted from a single light source. At this time, optical absorption characteristics of the first ~~an~~ and second QCSE photodetectors are set such that they are slightly shifted as shown in FIG. 4, and thereby set to overlap each other. In other words, a first wavelength-photocurrent graph obtained when a selected bias voltage is applied to the first QCSE photodetector and a second wavelength-photocurrent graph obtained when a selected bias voltage is applied to the second QCSE photodetector are to overlap at a predetermined reference wavelength. A photocurrent outputted from the first QCSE photodetector is greater than a photocurrent outputted from the second QCSE photodetector at wavelengths shorter than the overlapped point while the photocurrent outputted from the second QCSE photodetector is greater than the photocurrent outputted from the first QCSE photodetector at wavelengths longer than the overlapped point. If the photocurrent outputted from the first QCSE photodetector is greater than the photocurrent outputted from the second QCSE photodetector, a beam having a wavelength longer than the reference wavelength is outputted from the single light source, while if the photocurrent outputted from the second QCSE

photodetector is greater than the photocurrent outputted from the first QCSE photodetector, a beam having a wavelength shorter than the reference wavelength is outputted, thereby allowing the light outputted from the single light source to maintain the reference wavelength.

Please replace the paragraph beginning on page 15, line 16 through page 16, line 1, with the following rewritten paragraph:

Referring to FIG. 5A, as a beam is incident upon a QCSE photodetector, an electron in the valence band absorbs an energy of the incident beam and is transited to the conduction band, so that an electrical signal, i.e., photocurrent is generated. By detecting this photocurrent and monitoring an absorption spectrum, it is possible to view a peak of 1s exciton. This exciton is a pair of electron and hole acting as a single particle by a weak coulomb force. Energy absorbed by the ~~exciton~~ exciton is a little smaller than energy of quantum well band interval. Accordingly, an effect due to the exciton is generated at the longer wavelengths side on the absorption spectrum.